VI.—The Sea-Dayak method of making Thread from their Home-Grown Cotton.—By the Revo. W. Howell, of The S. P. G. Mission, Sabu, Sarawak.

The Sea-Dayaks are more advanced in some ways than the majority of Bornean tribes, and the weaving of cloth from their home-grown cotton is an instance of this. The subject has been mentioned briefly by numerous writers, but a glance at the pages of Ling-Roth's valuable compendium on the races of Sarawak and British North Borneo, shows that after all the recorded details of this industry are distinctly meagre, and more recent books add but little further information. The purpose of the following lines therefore is to try and fill a small gap in our knowledge of Sea-Dayak life, by giving a detailed account of their process of making and dyeing thread from their home-grown cotton.

Separate farms or gardens (empalai) are set apart for growing cotton (taya) and the seed once planted soon develops, so that within a year of sowing, there is fruit sufficient to pick and utilize for cotton. It should be added that the Dayaks do not buy their cotton seed from local bazaars, but take it when needed from their own crops; where the original seed is supposed to have come from I am unable to find out.

After the cotton has been picked, taken out of its skin and dried, it is passed through a cotton gin (pemigi) in order to get rid of its seeds. Then from very early in the morning until about 9 a.m., it is threshed out on a mat with a cotton-beater (pemalu taya), the women using both hands for the work. It is believed that the strong heat of the sun hinders laxity, hence the early hours adopted for this part of the work. The cotton is threshed twice; first, into a flat piece averaging two to three feet square and some two inches in thickness; this is called a *lapis*. In the evening after dinner when everybody assembles in the long reception room (ruai) for all sorts of purposes such as settling cases, chatting or doing odd pieces of work, among other occupations one sees the lapis brought out, folded and placed on the thigh to be cut into very thin pieces and then gathered into a The following morning the thin fragments of Sar. Mus. Journ. No. 2, 1912.

cotton are put on a mat in order to go through the second threshing in order to reduce it to a still thinner *lapis*, this time to the thickness of a sheet of thick paper.

The following evening the *lapis* is to be *diluli*, which means to say it is to be rolled up into the thickness of one's finger so as to be ready for spinning. A luli is an instrument from six inches to a foot long, pointed and not bigger than one's little finger. After the lapis is rolled round the luli twice or thrice, it is cut off and placed in a basket. The cotton thus rolled is called *luli* also. luli are then attached to a spinning-wheel (gasing) and spun into thread one by one. When the shuttle-pin (mata gasing or "eye of the spinning-wheel") is full up the thread is stretched in the koali or cotton-stretcher. It is then taken out and dipped in rice gruel (kanji) for some little time—this is called the process of nyikat; after being well saturated it is taken out and stretched lengthways in the runi by means of two bamboos. After this it is combed with a cocoanut husk in order to smooth it and to take off any rice grains that are sticking to it; it remains thus until quite dry, when it is rolled up into a ball or balls; this last process being called nabu. The thread is now ready for the further processes of dyeing and weaving.

There are various kinds of Dayak cloth, which are obtained by different processes of dyeing. The following are the principal kinds:—

- (i) Kain chelum, or black cloth. This is obtained by dipping the white thread first of all into engkerbai water for a night, a mixture made by boiling the leaves of the engkerbai shrub and mixing some chunam with it; this gives a pink colour to the thread, which is then washed and dried. In order to get the black colour it is dipped into a preparation of tarum water (made from the indigo plant in the same way as the engkerbai water). It is again washed and dried and will then be ready for use.
- (ii) Kain or pua mata, which literally means "the unripe cloth," but technically speaking is the non-red cloth.
- (iii) Kain or pua engkudu, which means the red cloth. The thread of this is called ubong embun because it has to be exposed to the dew for so many nights, the exact length of time depending on the woman who

conducts the operation. The mixing of this particular dye is supposed to be very difficult and perhaps only one in fifty knows much about it. The woman who becomes the recognized authority on this subject takes the name of "Orang tau nakar tau ngar," which means "She who knows the secret of measuring out the drugs in order to obtain the rich colour," and for this work she is well paid, the usual fee being a small jar (tepayan), a sacred stone (plaga), a small bell (grunong), and a brass ring (chinchin tembaga). Some of the "professors" affirm that they learnt the art from the fairy goddesses such as Kumang, Indai Abang, etc. With some Sea-Dayak tribes they even go so far as to make offerings to these goddesses, asking their help in the difficult work of dyeing the cotton red (ngar or nakar ubong). The woman who undertakes this particular kind of dyeing, first of all gets a piece of steel which she bites in order to strengthen her soul. This steel is called kris samengat. They make a great deal of fuss over the work of laying out the thread on the platform (tajeu), and the business of it is called the kayau indu or "warpath of the women."

As students of Dayak life know well, the Sea-Dayak bachelor in order to win the affections of a maiden must needs get a head first, similarly the Sea-Dayak maiden to win the affection of a bachelor must needs be accomplished in the arts of weaving and dyeing.

To Kain or pua mata can be added ubong mata or the unripe thread.

We may now continue the description of the process of dyeing the thread and weaving. After the thread has been rolled up into a ball, it is stretched in the loom to ascertain the length and breadth of the cloth to be woven; this process is called mungga. This being ascertained the thread is carefully taken out of the loom as it is, and fixed to the tangga ubong or "the ladder of the thread," to be tied (kebat) with the thread of the fibre of the lemba lily. This first process of kebat is to retain the white colour for the future pattern. this is done the kebat thread is taken out of the tangga ubong and dipped into engkerbai water, and then dried. This, as mentioned above, gives a pink colour. is quite dry the thread is fixed again to the tangga ubong and kebat again for the second time. This second kebat is to retain the pink colour for the pattern, and is called

mampul. This being done the thread is taken out again from the tangga ubong and dipped into tarum or indigo water in order to gain the black colour. After it is quite dry it is fixed again for the last time to the tangga ubong. This process is called ngetas tampok lemba, which means literally "the cutting off of the knots." that is, to undo the knots. This being done the thread is carefully put into the loom for weaving.

In order to make the kain or pua mansau, engkudu or embun, the thread (ubong) is prepared in the following way:—

After being first dipped in saffron water (kunyit) it is subjected to the following concoction: (i) kapayang oil, made from kapayang * seeds burnt and pounded in salt, and for proper preservation there should be plenty of salt; (ii) klemintin fruit, (iii) klampai fruit, (iv) engkringan fruit, and (v) ginger, all burnt and pounded in the same way. These are carefully measured out with a cocoanut shell in the correct proportions, and are then put into a wooden trough containing cold water. After this concoction has been well stirred and mixed the thread is dipped into it for twenty-four hours, during which time great care is taken to see that it is well saturated. It is then taken out and stretched on a mat for twelve hours and afterwards put out on the outside platform (tanjeu) for sixteen days, so that the sun and dew may complete the process. It should be noted that although dew is apparently regarded as a necessity, great care is taken to prevent the newly-dyed thread from getting wet from rain, and on the slightest suggestion of a shower, either by day or night, the thread is taken into the house. After eight days on the tanjeu, the thread is turned, so that the other side may receive similar treatment for the remaining eight days. The dyed thread is now washed, dried, dipped in rice gruel, combed and rolled into balls ready for weaving as described before.



^{*} Pangium edule.